

IN THE CLAIMS

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1. (Currently Amended) A semiconductor device comprising:
a semiconductor substrate; and
a gate insulating film, provided on the semiconductor substrate, at least part of which includes an insulating film containing metal, silicon and oxygen;
wherein ~~fluorine is~~ or fluorine and nitrogen are contained in said insulating film containing metal, silicon and oxygen.
 2. (Currently Amended) A semiconductor device comprising:
a semiconductor substrate; and
a gate insulating film provided on said semiconductor substrate, at least part of said gate insulating film including a metal oxide film;
wherein an insulating film containing metal, silicon and oxygen is provided between said semiconductor substrate and said metal oxide film and ~~fluorine is~~ or fluorine and nitrogen are contained in said insulating film containing metal, silicon and oxygen.
 3. (Previously Presented) A semiconductor device according to claim 1, wherein each of said metal oxide film and said insulating film containing metal, silicon and oxygen is an amorphous film.
 4. (Original) A semiconductor device according to claim 3, further comprising a flat insulating film having a gate opening portion in which said amorphous metal oxide film and said gate insulating film containing metal, silicon and oxygen are formed; and a gate electrode formed

on said gate insulating film in the gate opening portion and having a surface which is flush with said flat insulating film.

5. (Previously Presented) A semiconductor device comprising:

a semiconductor substrate;

a gate insulating film provided on said semiconductor substrate, at least part of said gate insulating film including a metal oxide film; and

wherein an insulating film containing metal, silicon and oxygen is formed between said semiconductor substrate and said metal oxide film, said insulating film containing fluorine or fluorine and nitrogen and a main metal element constituting said metal oxide film and a main metal element constituting said insulating film containing metal, silicon and oxygen are different from each other.

6-11. (Cancelled)

12. (Currently Amended) A semiconductor device comprising:

a semiconductor substrate; and

first and second transistor regions formed on said semiconductor substrate, each of said first and second transistor regions having a gate insulating film at least a part of which includes an insulating film containing metal, silicon and oxygen, and at least one of said insulating films provided in the first and second transistor regions contains ~~fluorine~~ or fluorine and nitrogen;

wherein metal elements constituting said insulating films containing metal, silicon

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and oxygen in said first and second regions are the same and the composition ratios of the metal elements, silicon and oxygen of said insulating films containing metal, silicon and oxygen in said first and second regions are different from each other.

13. (Currently Amended) A semiconductor device comprising:

a semiconductor substrate;

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a first transistor region on said semiconductor substrate, in which a metal oxide film is provided as at least part of a first gate insulating film; and

a second transistor region on the semiconductor substrate in which a second gate insulating film containing metal, silicon and oxygen is provided, and a part of at least one of said first and second gate insulating films adjacent to the semiconductor substrate contain ~~fluorine or~~ fluorine and nitrogen;

wherein a metal element constituting the metal oxide film in said first transistor region is the same as a metal element constituting the second gate insulating film containing metal, silicon and oxygen in said second transistor region.

14-20. (Cancelled)

21. (Previously Presented) A semiconductor device according to claim 1, wherein the semiconductor substrate is made of silicon.

22. (Previously Presented) A semiconductor device according to claim 2, wherein the semiconductor substrate is made of silicon.

23. (Currently Amended) A semiconductor device comprising:
a semiconductor substrate; and
a gate insulating film provided on the semiconductor substrate, at least part of the
gate insulating film including a metal oxide film;

wherein a single insulating film containing metal, silicon and oxygen is provided
between the semiconductor substrate and the metal oxide film and ~~at least one of~~ fluorine and
nitrogen [[is]] are contained in the single insulating film containing metal, silicon and oxygen.

24. (Previously Presented) A semiconductor device according to claim 5, wherein the
semiconductor substrate is made of silicon.

25. (Previously Presented) A semiconductor device according to claim 13, wherein
the semiconductor substrate is made of silicon.

26. (New) A semiconductor device comprising:
a semiconductor substrate, and
first and second transistor regions formed on said semiconductor substrate, each
of said first and second transistor regions having a gate insulating film at least a part of said gate
insulating film including a metal oxide film;

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wherein an insulating film containing metal, silicon and oxygen is formed between said semiconductor substrate and said metal oxide film, said insulating film provided in one of the first and second transistor regions contains fluorine or fluorine and nitrogen; and

wherein a metal element constituting said insulating film containing metal, silicon and oxygen in one of said first and second regions is different from that of the metal oxide film and the composition ratios of the metal elements, silicon and oxygen of said insulating films in said first and second regions are different from each other.

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27. (New) A semiconductor device comprising:

a semiconductor substrate;

a first transistor region on said semiconductor substrate, in which a first metal oxide film is provided as at least part of a first gate insulating film and a first insulating film containing metal, silicon and oxygen is provided between the semiconductor substrate and the first metal oxide film; and

a second transistor region on said semiconductor substrate, in which a second metal oxide film is provided as at least part of a second gate insulating film and a second insulating film containing metal, silicon and oxygen is provided between the semiconductor substrate and the second metal oxide film, and a part of at least one of said first and second gate insulating films adjacent to the semiconductor substrate contains fluorine or fluorine and nitrogen;

wherein a metal element constituting the first or second metal oxide film in said first or second transistor region and that in the corresponding first or second insulating film are different from each other.

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28. (New) A semiconductor device according to claim 27, wherein the semiconductor substrate is made of silicon.